WE CLAIM:

1.   A method for providing real-time traffic updates to a mobile vehicle communication device comprising:

5   producing traffic incident region coordinate data;

communicating the traffic incident region coordinate data to a mobile vehicle communication device; and

determining when a traffic incident region coordinate is within a predetermined radius around the mobile vehicle communication device based on

10   the communicated traffic incident region coordinate data.

2.   The method of claim 1 wherein producing traffic incident region coordinates comprises:

receiving traffic incident data;

15   processing the traffic incident data to group traffic incidents into a plurality of traffic incident regions; and

determining a traffic incident region GPS coordinate for each of the plurality of traffic incident regions.

20   3.   The method of claim 2 wherein the traffic incident region GPS coordinate describes the geometric center of a traffic incident region containing at least one traffic incident.

4.   The method of claim 3 wherein the size of the traffic incident region

25   is controlled with a method selected from the group consisting of individually controllable, dynamically controllable, controlling depending on road density and setting the size to 10 miles or less.

5.   The method of claim 3 wherein the traffic incident region has a selectable geometry.

5   6.   The method of claim 2 wherein communicating the traffic incident region coordinate comprises:

transmitting a traffic incident region GPS coordinate for each of the plurality of traffic incident regions; and

receiving the traffic incident region GPS coordinate for each of the

10   plurality of traffic incident regions at the mobile vehicle communication device.

7.   The method of claim 6 wherein the traffic incident region GPS coordinate is transmitted via a satellite radio broadcast.

15   8.   The method of claim 6 wherein determining when a traffic incident region is within a predetermined radius around the mobile vehicle communication device comprises:

determining a location GPS coordinate describing the location of the mobile vehicle communication device;

20   comparing the received traffic incident region GPS coordinate with the location GPS coordinate describing the location of the mobile vehicle communication device; and

identifying when a traffic incident region GPS coordinate is within the predetermined radius around the mobile vehicle communication device based

25   on the comparison.

9.   The method of claim 1 further comprising:

determining localized traffic incident data for the traffic incident region coordinate responsive to determining that the traffic incident region

5   coordinate is within a forward view radius of the mobile vehicle communication device.

10.   The method of claim 9 wherein determining the localized traffic incident data comprises:

10   initiating a communication to a service provider;

requesting the localized traffic incident data for the determined traffic incident region coordinate from the service provider;

receiving the traffic incident data for the traffic incident region coordinate from the service provider; and

15   providing the localized traffic incident data to a user.

11.   A computer readable medium storing a computer program comprising:

computer readable code for producing traffic incident region coordinate data;

20   computer readable code for directing communication of the traffic incident region coordinate data to a mobile vehicle communication device; and

computer readable code for determining when a traffic incident region coordinate is within a predetermined radius around the mobile vehicle communication device based on the communicated traffic incident region

25   coordinate data.

12.   The computer readable medium of claim 11 wherein computer readable code for producing the traffic incident region coordinate comprises:

computer readable code for processing received traffic incident data to group traffic incidents into a plurality of traffic incident regions; and

computer readable code for determining a traffic incident region GPS coordinate for each of the plurality of traffic incident regions.

13.   The computer readable medium of claim 12 wherein the computer readable code for determining a traffic incident region comprises code for determining a geometric center of a traffic incident region containing at least one traffic incident.

14.   The computer readable medium of claim 13 wherein computer readable code for determining when a traffic incident region is within a predetermined radius around the mobile vehicle communication device comprises:

computer readable code for determining a location GPS coordinate describing the location of the mobile vehicle communication device;

computer readable code for comparing the received traffic incident region GPS coordinates with the location GPS coordinate describing the location of the mobile vehicle communication device; and

computer readable code for identifying when a traffic incident region GPS coordinate is within the predetermined radius around the mobile vehicle communication device based on the comparison.

15.   The computer readable medium of claim 11 further comprising:

computer readable code for determining localized traffic incident data for the traffic incident region coordinate responsive to determining that the

5   traffic incident region coordinate is within a forward view radius of the mobile vehicle communication device.

16.   The method of claim 15 wherein computer readable code for determining the localized traffic incident data comprises:

10   computer readable code for initiating a communication to a service provider;

computer readable code for requesting the localized traffic incident data for the determined traffic incident region coordinate from the service provider; and

15   computer readable code for providing received localized traffic incident data to a user.

17.   A system for providing real-time traffic updates to a mobile vehicle communication device comprising:

means for producing traffic incident region coordinate data;

20   means for communicating the traffic incident region coordinate data to a mobile vehicle communication device; and

means for determining when a traffic incident region coordinate is within a predetermined radius around the mobile vehicle communication device based on the communicated traffic incident region coordinate data.

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18.   The system of claim 17 wherein means for producing traffic incident region coordinates comprises:

means for receiving traffic incident data;

5   means for processing the traffic incident data to group traffic incidents into a plurality of traffic incident regions; and

means for determining traffic incident region GPS coordinates for each of the plurality of traffic incident regions.

10   19.   The system of claim 17 wherein means for determining when a traffic incident region is within a predetermined radius around the mobile vehicle communication device comprises:

means for determining a location GPS coordinate describing the location of the mobile vehicle communication device;

15   means for comparing the received traffic incident region GPS coordinates with the location GPS coordinate describing the location of the mobile vehicle communication device; and

means for identifying when a traffic incident region GPS coordinate is within the predetermined radius around the mobile vehicle communication

20   device based on the comparison.

20.   The system of claim 17 further comprising:

means for determining localized traffic incident data for the traffic incident region coordinate responsive to determining that the traffic incident

25   region coordinate is within a forward view radius of the mobile vehicle communication device.